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RECEIVED TECH GENTER 1600/2000

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<130> JHU1720-1

PEDERSEN, Peter L.

MATHUPALA, Saroj P.

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Asn Gln Val Gln Lys Val Asp Gln Phe Leu Tyr His Met Arg Leu Ser 20 25 30

Asp Glu Thr Leu Leu Glu Ile Ser Arg Arg Phe Arg Lys Glu Met Glu 35 40 45

Lys Gly Leu Gly Ala Thr Thr His Pro Thr Ala Ala Val Lys Met Leu 50 55 60

Pro Thr Phe Val Arg Ser Thr Pro Asp Gly Thr Glu His Gly Glu Phe 65 70 75 80

Leu Ala Leu Asp Leu Gly Gly Thr Asn Phe Arg Val Leu Arg Val Arg
85 90 95

Val Thr Asp Asn Gly Leu Gln Arg Val Glu Met Glu Asn Gln Ile Tyr 100 105 110

Ala Ile Leu Glu Asp Ile Met Arg Gly Ser Gly Thr Gln Leu Phe Asp 115 120 125

His Ile Ala Glu Cys Leu Ala Asn Phe Met Asp Lys Leu Gln Ile Lys 130 135 140

Glu Lys Lys Leu Pro Leu Gly Phe Thr Phe Ser Phe Pro Cys His Gln 145 150 155 160

Thr Lys Leu Asp Glu Ser Phe Leu Val Ser Trp Thr Lys Gly Phe Lys 165 170 175

Ser Ser Gly Val Glu Gly Arg Asp Val Val Asp Leu Ile Arg Lys Val 180 185 190

Ile Gln Arg Arg Gly Asp Phe Asp Ile Asp Ile Val Ala Val Val Asn 195 200 205

Asp Thr Val Gly Thr Met Met Thr Cys Gly Tyr Asp Asp Gln Asn Cys 210 215 220

Glu Ile Gly Leu Ile Val Gly Thr Gly Ser Asn Ala Cys Tyr Met Glu 225 230 235 240

Glu Met Arg His Ile Asp Met Val Glu Gly Asp Glu Gly Arg Met Cys 245 250 255

Ile Asn Met Glu Trp Gly Ala Phe Gly Asp Asp Gly Thr Leu Asn Asp 260 265 270

Ile Arg Thr Glu Phe Asp Arg Glu Ile Asp Met Gly Ser Leu Asn Pro 275 280 285

Gly Lys Gln Leu Phe Glu Lys Met Ile Ser Gly Met Tyr Met Gly Glu 290 295 300 Leu Val Arg Leu Ile Leu Val Lys Met Ala Lys Ala Glu Leu Leu Phe 305 310 315 320

Gln Gly Lys Leu Ser Pro Glu Leu Leu Thr Thr Gly Ser Phe Glu Thr 325 330 335

Lys Asp Val Ser Asp Ile Glu Glu Asp Lys Asp Gly Ile Glu Lys Ala 340 345 350

Tyr Gln Ile Leu Met Arg Leu Gly Leu Asn Pro Leu Gln Glu Asp Cys 355 360 365

Val Ala Thr His Arg Ile Cys Gln Ile Val Ser Thr Arg Ser Ala Ser 370 375 380

Leu Cys Ala Ala Thr Leu Ala Ala Val Leu Trp Arg Ile Lys Glu Asn 385 390 395 400

Lys Gly Glu Glu Arg Leu Arg Ser Thr Ile Gly Val Asp Gly Ser Val 405 410 415

Tyr Lys Lys His Pro His Phe Ala Lys Arg Leu His Lys Ala Val Arg
420 425 430

Arg Leu Val Pro Asp Cys Asp Val Arg Phe Leu Arg Ser Glu Asp Gly
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Ser Gly Lys Gly Ala Ala Met Val Thr Ala Val Ala Tyr Arg Leu Ala 450 455 460

Asp Gln His Arg Ala Arg Gln Lys Thr Leu Glu Ser Leu Lys Leu Ser 465 470 475 480

His Glu Gln Leu Leu Glu Val Lys Arg Arg Met Lys Val Glu Met Glu 485 490 495

Gln Gly Leu Ser Lys Glu Thr His Ala Val Ala Pro Val Lys Met Leu 500 505 510

Pro Thr Tyr Val Cys Ala Thr Pro Asp Gly Thr Glu Lys Gly Asp Phe 515 520 525

Leu Ala Leu Asp Leu Gly Gly Thr Asn Phe Arg Val Leu Leu Val Arg 530 535 540

Val Arg Asn Gly Lys Arg Arg Gly Val Glu Met His Asn Lys Ile Tyr 545 550 555

Ser Ile Pro Gln Glu Val Met His Gly Thr Gly Glu Glu Leu Phe Asp 565 570 575

His Ile Val Gln Cys Ile Ala Asp Phe Leu Glu Tyr Met Gly Met Lys 580 585 590

Gly Val Ser Leu Pro Leu Gly Phe Thr Phe Ser Phe Pro Cys Gln Gln 595 600 605

Asn Ser Leu Asp Gln Ser Ile Leu Leu Lys Trp Thr Lys Gly Phe Lys 610 615 620

Ala Ser Gly Cys Glu Gly Glu Asp Val Val Thr Leu Leu Lys Glu Ala

625 .630 635 640 Ile His Arg Arg Glu Glu Phe Asp Leu Asp Val Val Ala Val Val Asn 650 645 Asp Thr Val Gly Thr Met Met Thr Cys Gly Tyr Glu Asp Pro His Cys 665 Glu Val Gly Leu Ile Val Gly Thr Gly Ser Asn Ala Cys Tyr Met Glu Glu Met Arg Asn Val Glu Leu Val Asp Gly Glu Glu Gly Arg Met Cys Val Asn Met Glu Trp Gly Ala Phe Gly Asp Asn Gly Cys Leu Asp Asp Leu Arg Thr Val Phe Asp Val Ala Val Asp Glu Leu Ser Leu Asn Pro 730 Gly Lys Gln Arg Phe Glu Lys Met Ile Ser Gly Met Tyr Leu Gly Glu 740 Ile Val Arg Asn Ile Leu Ile Asp Phe Thr Lys Arg Gly Leu Leu Phe 760 Arg Gly Arg Ile Ser Glu Arg Leu Lys Thr Arg Gly Ile Ser Glu Thr 780 Lys Phe Leu Ser Gln Ile Glu Ser Asp Cys Leu Ala Leu Leu Gln Val 790 Arg Ala Ile Leu Arg His Leu Gly Leu Glu Ser Thr Cys Asp Asp Ser 805 810 815 Ile Ile Val Lys Glu Val Cys Thr Val Val Ala Arg Arg Ala Ala Gln 825 Leu Cys Gly Ala Gly Met Ala Ala Val Val Asp Lys Ile Arg Glu Asn 840 Arg Gly Leu Asp Asn Pro Lys Val Thr Val Gly Val Asp Gly Thr Leu Tyr Lys Leu His Pro His Phe Ala Lys Val Met His Glu Thr Val Arg 875 Asp Leu Ala Pro Lys Cys Asp Val Ser Phe Leu Glu Ser Glu Asp Gly Ser Gly Lys Gly Ala Ala Leu Ile Thr Ala Val Ala Cys Arg Ile Arg 905 Glu Ala Gly Gln Arg 915